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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,919	04/01/2005	Selim Yalvac	60285A	5284
109 7590 02/03/2011 The Dow Chemical Company P.O. BOX 1967 2040 Dow Center Midland, MI 48641				
EXAMINER				
LENIHAN, JEFFREY S				
ART UNIT		PAPER NUMBER		
1765				
NOTIFICATION DATE		DELIVERY MODE		
02/03/2011		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

FFUIMPC@dow.com

Office Action Summary

Application No.

10/529,919

Applicant(s)

YALVAC ET AL.

Examiner

Jeffrey Lenihan

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 10-15, 17-19, 23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-15, 17-19, 23, and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Correspondence Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is responsive to the amendment filed on 11/08/2010.
2. The objections and rejections not addressed below are deemed withdrawn.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Continued Examination Under 37 CFR 1.114

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/08/2010 has been entered.

Claim Objections

5. Claims 2 and 3 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 2 and 3 state that the lower limit for the Brookfield viscosity of the second interpolymer is 500 cP; this value is less than the lower limit recited in parent claim 1. The claims therefore impermissibly broaden the scope of the parent claim.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. As noted earlier in this Action, claims 2 and 3 state that the lower limit for the Brookfield viscosity of the second interpolymer is 500 cP; this limitation is inherited by dependent claims 4 and 5. It is unclear how the second interpolymer having a Brookfield viscosity of 500 cP, as allowed by the instant claims, can satisfy the requirement in the parent claim that the Brookfield viscosity is at least 3000 cP.

Claim Rejections - 35 USC § 103

9. Claims 1-6, 10-15, 17-19, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lai et al, US5278272, in view of Rifi, US4812526.
10. Lai discloses an elastomeric substantially linear ethylene/ α -olefin copolymer (SLEP) having a density in the range of 0.85 to 0.97 g/cm³ (for claims 1-3, 5, 11, 17, 24) (Column 4, lines 53-56) and a melt index, I₂, in the range of 0.01 g/10 min to 1000 g/10 min. Per the equation disclosed as a footnote to Table 1 in the 37 CFR § 1.132 declaration submitted by applicant on 11/08/2010, the I₂ of the SLEP of Lai corresponds to a Brookfield viscosity in the range of 8187.9 to 1.68x10⁶ cP, overlapping the claimed viscosity range (for claims 1-3, 14, 17). The SLEP of Lai therefore corresponds to the

claimed component (B) (for claims 1, 4, 17). Lai teaches that the SLEP may be used as an impact modifier for polypropylene (Column 15, lines 40-45), corresponding to claimed component (A) when components (A)(a) and (A)(b) are present in amounts of 100% by weight and 0% by weight, respectively (for claims 1, 17). Compositions comprising the SLEP may be fabricated into articles (for claims 6,15,19) (Column 15, lines 64-68).

11. Lai is silent regarding the ratio in which the SLEP and the polypropylene are combined.

12. Rifi discloses an impact modified polypropylene prepared by blending polypropylene with an ethylene/ α -olefin copolymer. Said impact modified polypropylene comprises 15 to 50% by weight of the ethylene/ α -olefin copolymer (Column 2, lines 49-50; Table in Column 3) and, by extension, 50 to 85% by weight of the polypropylene. Rifi further teaches that fillers such as carbon black, corresponding to the claimed additive, are conventionally added to impact modified polypropylene to improve the composition's physical/mechanical properties (Column 2, lines 34-38).

13. Rifi and Lai both teach the use of ethylene/ α -olefin copolymers as impact modifiers for polypropylene. As taught by Rifi, it was known in the art to blend 15 to 50% by weight of the ethylene/ α -olefin copolymer with polypropylene in order to obtain a polypropylene composition having improved impact properties. Barring a showing of factual evidence demonstrating unexpected results, it therefore would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Lai by combining 15 to 50% by weight of the SLEP (for claims 1-

3,10,17,18) with 50 to 85% by weight of the polypropylene (for claims 1-3,12,13,17,23) with the reasonable expectation of obtaining a final polypropylene composition having improved impact properties. Furthermore, it would have been obvious to modify the impact polypropylene of Lai by adding a filler such as carbon black, as taught by Rifi, in order to improve the mechanical/physical properties of the final composition.

14. Regarding the increase in melt index (for claims 1-3, 17): A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present; see *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). As the prior art impact polypropylene comprises the same components combined in similar amounts as the claimed invention, it is reasonably expected that the properties of the prior art article would necessarily be the same as claimed and inherently be not materially different from those of the claimed invention. The burden is therefore shifted to applicant to provide factual evidence demonstrating an unobvious difference between the claimed invention and the prior art.

Response to Arguments

15. Applicant's arguments, see pages 6-8, filed 11/08/2010, with respect to the difference in densities of claimed components (A)(b) and (B) compared to the requirements of the prior art have been fully considered and are persuasive. The rejection of claims over Sehanobish in view of Lai has been withdrawn.

16. Regarding the allegedly unexpected results compared to the rejection of claims over Lai in view of Rifi, the examiner notes that the allegedly unexpected results are not commensurate in scope with the invention as recited in the currently pending claims. Example 6 in the instant specification is the only example disclosing samples wherein the polypropylene is part of the composition. The examiner notes that all of samples 6A-6J comprise three components: polypropylene, corresponding to claimed component (A)(a); an ethylene/octene elastomer, corresponding to claimed component (A)(b); and an extender, corresponding to claimed component (B) (see Table 6). The claims, however, read on a composition that only comprises components (A)(a) and (B). Applicant therefore has not demonstrated that unexpected results are obtained from a composition comprising only components (A)(a) and (B).

17. Applicant can rebut a prima facie case of obviousness by showing that there are new or unexpected results relative to the prior art; see *Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*, 392 F.3d 1317, 1322, 73 USPQ2d 1225, 1228 (Fed. Cir. 2004). The examiner first notes that Comparative Example 6 (CE6) comprises an ethylene/octene elastomer which is not taught by Lai; the composition of CE6 therefore does not correspond to the prior art impact modified polypropylene. Furthermore, the difference between the inventive samples of Example 6 and CE 6 is the addition of the extender; however, as noted above, the difference between the impact modified polypropylene of Lai and the claimed invention is the ratio in which components (A) and (B) are combined. Applicant therefore has not demonstrated that unexpected results are obtained due to a difference between the claimed invention and the prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Lenihan whose telephone number is (571)270-5452. The examiner can normally be reached on Monday through Thursday from 7:30-5:00 PM, and on alternate Fridays from 7:30-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/
Primary Examiner, Art Unit 1765

/Jeffrey Lenihan/
Examiner, Art Unit 1765

/JL/